IN THE U.S. PATENT AND TRADEMARK OFFICE

Appellant:	Mahdi S. CHAMBERS
Application No.:	09/280,618
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Group Art Unit:	2616
Examiner:	Donald L. Mills
Title:	DESTINATION CALL ROUTING APPARATUS AND METHOD
Attorney Docket:	129250-000915/US

APPELLANT'S BRIEF ON APPEAL

MAIL STOP APPEAL BRIEF - PATENTS
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March 26, 2008

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APPELLANT'S BRIEF ON APPEAL

I. REAL PARTY IN INTEREST:

The real party in interest in this appeal is Lucent Technologies Inc. Assignment of the application was submitted to the U.S. Patent and Trademark Office and recorded at Reel 010010, Frame 0908.

II. RELATED APPEALS AND INTERFERENCES:

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS:

Claims 1-9, 12-31 and 33-41 are pending in the application, with claims 1, 19, 23 and 39-41 being written in independent form.

Claims 1-8, 12, 13, 15-29 and 33-41 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,442,169 to Lewis ("Lewis"). Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of U.S. Patent No. 6,292,463 to Burns et al. ("Burns"). Claims 9, 30 and 31 were also rejected under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of an article by U. Black entitled, "ATM Foundation for Broadband Networks" ("Black"). Claims 1-9, 12-31 and 33-41 are being appealed.

IV. STATUS OF AMENDMENTS:

A Request for Reconsideration ("Request") was filed on January 4, 2008. In an Advisory Action dated January 23, 2008, the Examiner stated that the Request was considered but did not place the application in condition for allowance.

V. SUMMARY OF CLAIMED SUBJECT MATTER:

(i). Overview of the Subject Matter of the Independent Claims

The present invention is directed at the routing of communications traffic. More specifically, independent claim 1 reads as follows (specification citations are in parenthesis):

1. A method for routing traffic over a Public Switched Telephone Network (PSTN) from an origin location to a destination location associated with a traffic type, said traffic comprising signaling data and traffic data, the method comprising the steps of:

receiving signaling data from a first switch serving the origin location (page 9, ll. 9-16 and page 10, ll. 17-20)**;**

determining said traffic type from said signaling data that has been received wherein said traffic type is characterized as a first traffic type or a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type (page 10, line 8 to page 11, line 2)**;**

directing said signaling data to said destination location associated with said first or second traffic type (page 8, line 16; page 11, line 4 to page 12, line 4; page 13, ll. 4-5; and page 18, ll. 10-12)

controlling a second switch serving said destination location to direct traffic data from the origin location to said destination associated with said first or second traffic type; the second switch configured to direct traffic data of the first traffic type to a destination end office (page 8, line 16; page 11, ll. 3-12; and page 18, ll. 10-12) **and the second traffic type to another type of destination network element** (page 8, line 16; page 11, line 13 to page 12, line 4; and page 18, ll. 10-12)**.**

Independent claim 19 reads as follows:

19. A destination call router for routing traffic from an originating location to a destination location over a PSTN, the destination call router comprising:

a first segment responsive to a first switch of a signaling network for determining a traffic type as a first traffic type or a second traffic type and commanding further action based on said traffic type, the first traffic type being a non-IP based voice traffic type and the second

traffic type being an IP based traffic type (page 8, ll. 14-16; page 9, line 17 to page 10, line 10; and page 18, ll. 10-12)
; and

a second segment responsive to commands from said first segment for switching, using a second switch, received transmissions between a plurality of destination locations, at least one destination location to an end office being associated with said first traffic type and at least one destination location being associated with said second traffic type (page 8, line 21 to page 9, line 1 and page 13, ll. 4-7).

Independent claim 23 reads as follows:

23. An apparatus to provide network congestion relief for the public switched telephone network (PSTN), the apparatus comprising:

a receiver for receiving call set-up information of a first protocol from a first switch over the PSTN;

a first processing unit for determining a traffic type from said received information over the PSTN (page 14, ll. 1-6)**;**

a second processing unit for translating said call set-up information of said first protocol to a second protocol, when said traffic type is characterized as a second traffic type over the PSTN (page 15, ll. 9-15)**;**

a transmitter for forwarding, over the PSTN,

a) said call set-up information of said first protocol to an end office, destination network element when said traffic type is characterized as a first traffic type (page 14, ll. 1-6)**; and**

b) said call set-up information of said second protocol to a second destination network element type when said traffic type is characterized as a second traffic type, (page 15, ll. 9-15) **the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type** ((page 10, line 8 to page 11, line 2 and page 14, line 1 to page 15, line 15)**; and**

means for controlling a second switch over the PSTN serving a destination location to connect data of said first traffic type to said end office, destination network element page 8, line 16; page 11, ll. 3-12; and page 18, ll. 10-12) **and data of said second traffic type to said second type of destination network element** (page 8, line 16; page 11, line 13 to page 12, line 4; and page 18, ll. 10-12)**.**

Independent claim 39 reads as follows:

39. A destination call router for directing voice and data traffic across the PSTN to call destinations and for providing network congestion

relief for data traffic, said traffic including signaling and non-signaling traffic from a first switch serving an originating location, said destination call router comprising:

a plurality of asynchronous transfer mode switches (page 13, ll. 4-7)**, each asynchronous transfer mode switch being a second switch serving a destination location which includes at least a destination end office** (page 8, line 21 to page 9, line 1)**; and**

a Broadband Interworking Call Router (BICR) connected with said asynchronous transfer mode switches, said BICR intercepting signaling of a first or second protocol from a first switch (page 8, line 14)**, said BICR translating signaling to a second protocol when receiving signaling for said data calls in said first protocol** (page 10, ll. 5-10)**, said BICR and routing said intercepted signaling to said call destinations** (page 8, line 16)**, controlling said plurality of asynchronous transfer mode switches to direct traffic to said destinations** (page 9, line 17 to page 10, line 3 and page 18, ll. 10-12)**.**

Independent claim 40 reads as follows:

40. A method for routing traffic over a Public Switched Telephone Network (PSTN) from an origin location to a destination location associated with a traffic type, said traffic comprising signaling data and non-signaling traffic data, the method comprising the steps of:

receiving signaling data from a first switch serving the origin location (page 9, ll. 9-16 and page 10, ll. 17-20)**;**

determining said traffic type from said signaling data that has been received wherein said traffic type is characterized as a first traffic type or a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type (page 10, line 8 to page 11, line 2)**;**

translating said signaling data associated with said first traffic type from a first protocol to a second protocol associated with said second traffic type (page 8, ll. 14-16; page 9, line 17 to page 10, line 10; and page 18, ll. 10-12)**;**

directing said signaling data to said destination location associated with said first or second traffic type that has been determined to establish a call (page 8, line 16; page 11, line 4 to page 12, line 4; page 13, ll. 4-5; and page 18, ll. 10-12)**; and**

controlling a second switch serving said destination location to direct traffic data from the origin location to said destination associated with said first or second traffic type; the switch configured to direct traffic data of the first traffic type to an end office (page 8, line 16; page 11, ll. 3-12; and page 18, ll. 10-12) **and the second traffic type to another type of**

network element (page 8, line 16; page 11, line 13 to page 12, line 4; and page 18, ll. 10-12)**.**

Independent claim 41 reads as follows:

41. A destination call router for routing traffic from an originating location to a destination location over a PSTN comprising:

a first segment responsive to a first switch of a signaling network for determining a traffic type as a first traffic type or a second traffic type and commanding further action based on said traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type (page 8, ll. 14-16; page 9, line 17 to page 10, line 10; and page 18, ll. 10-12)**; and for translating a call determined to be the first traffic type associated with a first protocol into a second protocol associated with the second traffic type** (page 8, ll. 14-16; page 9, line 17 to page 10, line 10; and page 18, ll. 10-12)**; and**

a second segment responsive to commands from said first segment for switching, using a second switch, received transmissions between a plurality of destination locations, at least one destination location being an end office associated with said first traffic type and at least one destination location being associated with said second traffic type (page 8, line 21 to page 9, line 1 and page 13, ll. 4-7)**.**

In order to make the overview set forth above concise the disclosure that has been included, or referred to, above only represents a portion of the total disclosure set forth in the Specification that supports the independent claims.

(ii). The Remainder of the Specification Also Supports the Claims

The Appellant notes that there may be additional disclosure in the Specification that also supports the independent and dependent claims. Further, by including the specification citations in parenthesis above the Appellant does not represent that this is the only evidence that supports the independent claims nor does the Appellant necessarily represent that these citations alone can be used to fully interpret the claims of the present

invention. Instead, the citations provide background support as an overview of the claimed subject matter.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Appellant seeks the Board's review and reversal of the rejection of: (i) claims 1-8, 12, 13, 15-29 and 33-41 under 35 U.S.C. §102(e) as being anticipated by Lewis; (ii) claim 14 under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of Burns; and (iii) claims 9, 30 and 31 under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of Black.

VII. ARGUMENTS:

A. The Section 102 Rejections

Claims 1-8, 12, 13, 15-29 and 33-41 were rejected under 35 U.S.C. §102(e) as being anticipated by Lewis. Appellant respectfully disagrees for at least the following reasons.

Each of the claims of the present invention requires (in different forms) either a non-IP based, voice traffic type or a "first" traffic type to be directed to an destination end office/end office.

In contrast, Lewis discloses a system where voice traffic is not directed to an end office. Rather, as disclosed throughout Lewis, the destination end office 108 is bypassed by Lewis' open architecture platform 402. In particular, Lewis shows a trunk 410 for delivering voice traffic to a called party 110 thereby bypassing end office (EO) 108. Further, it is clear from Lewis that the platform 402 is not the logical equivalent of the EO 108.

Nonetheless, in the Final and Advisory Office Actions the Examiner takes the position that Lewis' platform 402 is "logically equivalent" to Appellant's claimed "end office" because the platform 402 "provides equivalent functionality". Yet, Lewis itself treats its platform 402 and end office 108

differently, i.e., it does not equate the two logically or functionally, as demonstrated by the paragraph above.

Further, though Examiners may interpret claims broadly, such interpretations must be consistent with the specification, see *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000). In this case, interpreting the platform 402 in Lewis as an end office is not consistent with the specification because the specification does not equate an end office with a platform like that in Lewis. Because interpreting the platform 402 in Lewis as an end office is inconsistent with the specification, and as importantly, inconsistent with how Lewis itself uses those two terms, it cannot be said that Lewis teaches or suggests the claimed inventions.

Because Lewis does not disclose each and every element of the present invention, Lewis cannot anticipate the claims of the present invention.

Accordingly, Appellant respectfully requests withdrawal of the pending rejections and allowance of claims 1-8, 12, 13, 15-29 and 33-41.

B. <u>The Section 103 Rejections</u>

(i) Claim 14

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of Burns. Appellant respectfully disagrees for at least the following reasons.

Initially, Appellant notes that claim 14 is dependent upon claim 1 and is, therefore, patentable over a combination of Lewis and Burns for the reasons set forth above and because Burns does not make up for the deficiencies of Lewis discussed above.

In addition, Appellant notes the admission by the Examiner that Lewis does not disclose or suggest the subject matter of claim 14 which is, namely, directed at a connection to a remote access server which may be selected from the group consisting of a switched connection and a soft, Permanent Virtual Circuit connection.

(ii) Claims 9, 30 and 31

Claims 9, 30 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lewis in view of Black. Appellant respectfully disagrees for at least the following reasons.

Again, Appellant initially notes that claims 9, 30 and 31 are dependent upon independent claims 1 and 19 and are, therefore, patentable over the combination of Lewis and Black for the reasons set forth above and because Black does not make up for the deficiencies of Lewis discussed above.

In addition, Appellant notes the admission by the Examiner that Lewis does not disclose or suggest the use of Q.931 signaling. Accordingly, Appellant respectfully requests withdrawal of the pending rejections and allowance of claims 9, 30 and 31.

Conclusion:

Appellant respectfully requests that the members of the Board reverse the decisions of the Examiner and allow claims 1-9, 12-31 and 33-41.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-3777 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
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VIII. CLAIMS APPENDIX

1. A method for routing traffic over a Public Switched Telephone Network (PSTN) from an origin location to a destination location associated with a traffic type, said traffic comprising signaling data and traffic data, the method comprising the steps of:

receiving signaling data from a first switch serving the origin location;

determining said traffic type from said signaling data that has been received wherein said traffic type is characterized as a first traffic type or a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type;

directing said signaling data to said destination location associated with said first or second traffic type; and

controlling a second switch serving said destination location to direct traffic data from the origin location to said destination associated with said first or second traffic type; the second switch configured to direct traffic data of the first traffic type to a destination end office and the second traffic type to another type of destination network element.

2. The method of Claim 1 wherein said signaling data comprises an initial message and following messages.

3. The method of Claim 1 wherein said step of determining a traffic type further comprises the steps of:

decoding said signaling data;

determining a called directory number from said signaling data that has been decoded; and

matching said called directory number with an entry of a predetermined table correlating directory numbers, said traffic types, and said destination locations.

4. The method of claim 1 further comprising the step of:

creating a table, wherein each element of said table correlates a directory number with said traffic type and said destination location; and

storing said table.

5. The method of Claim 1 wherein said signaling data that has been received and said signaling data that has been directing are of a first protocol.

6. The method of Claim 1 wherein said signaling data that has been received is of a first protocol and said signaling data that has been directing is of a second protocol.

7. The method of Claim 1 wherein the step of directing said signaling data to said destination location associated with said traffic type that has been determined to establish a call further comprises the steps of:

forwarding said signaling data that has been received in a first protocol to a first destination network element, when said traffic type is characterized as said first traffic type;

translating said signaling data that has been received in said first protocol to corresponding signaling data of a second protocol, when said traffic type is characterized as said second traffic type; and

forwarding said signaling data of said second protocol to a second destination network element, when said traffic type is characterized as said second traffic type.

8. The method of Claim 7 wherein said first protocol is Signaling System Seven (SS7) and said step of forwarding is accomplished via a SS7 A-link.

9. The method of claim 7 wherein said second protocol is ISDN Primary Rate Interface (PRI) Q.931 and said step of forwarding is accomplished via a Primary Rate Interface.

10. (Canceled)

11. (Canceled)

12. The method of claim 1 wherein said destination location is a remote access server.

13. The method of claim 1 wherein said step of controlling a second switch comprises the steps of:

sending an application programming interface command to said second switch; and

setting up a connection through said second switch to a port connected to said destination location according to said command.

14. The method of claim 12 wherein said connection is selected from the group consisting of a switched connection and a soft Permanent Virtual Circuit connection.

15. The method of claim 1 wherein said second switch is an asynchronous transfer mode switch.

16. The method of claim 1 wherein traffic data is distributed over a digitized voice transmission system selected from the group consisting of T1, E1, STS-1, DS-3, frame relay, native ATM, and Ethernet.

17. The method of claim 1 further comprising the steps of:

storing traffic detail information, when said traffic type is characterized as said second traffic type; and

transferring said traffic detail information that has been stored to a traffic accounting system.

18. The method of claim 17 wherein said traffic detail information is selected from the group consisting of call start time-stamp, call end time-stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B channel, outbound B channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification.

19. A destination call router for routing traffic from an originating location to a destination location over a PSTN, the destination call router comprising:

a first segment responsive to a first switch of a signaling network for determining a traffic type as a first traffic type or a second traffic type and commanding further action based on said traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type; and

a second segment responsive to commands from said first segment for switching, using a second switch, received transmissions between a plurality of destination locations, at least one destination location to an end office being associated with said first traffic type and at least one destination location being associated with said second traffic type.

20. The designation call router of claim 19 wherein said first segment is operable to

receive call set-up information of a first protocol;

determine said traffic type from said call set-up information;

direct said call set-up information of said first protocol to a first location type destination location for said first traffic type and forward replies from said first location type destination location to said originating destination in order to establish a call;

translate said call set-up information of said first protocol to a second protocol for said second traffic type and direct said call set-up information of said second protocol to a second location type destination network element and forward to said originating destination in said first protocol replies in said second protocol from said second location type destination network element in order to establish a call;

control a switch to connect data of said first traffic type to said first type destination network element and data of said second traffic type to said second type destination network element.

21. The destination call router of claim 19 wherein said first segment comprises:

a Broadband Interworking Call Router.

22. The destination call router of claim 19 wherein said second segment comprises:

a plurality of second switches, each second switch being an ATM switch.

23. An apparatus to provide network congestion relief for the public switched telephone network (PSTN), the apparatus comprising:

a receiver for receiving call set-up information of a first protocol from a first switch over the PSTN;

a first processing unit for determining a traffic type from said received information over the PSTN;

a second processing unit for translating said call set-up information of said first protocol to a second protocol, when said traffic type is characterized as a second traffic type over the PSTN;

a transmitter for forwarding, over the PSTN,

a) said call set-up information of said first protocol to an end office, destination network element when said traffic type is characterized as a first traffic type and

b) said call set-up information of said second protocol to a second destination network element type when said traffic type is characterized as a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type; and

means for controlling a second switch over the PSTN serving a destination location to connect data of said first traffic type to said end office,

destination network element and data of said second traffic type to said second type of destination network element.

24. The apparatus of claim 23 further comprising:

means for associating call set-up information with one of a plurality of destination network elements; and

means for storing said associated call set-up information.

25. The apparatus of claim 24 further comprising:

means for distinguishing received call set-up information as being associated with one of a plurality of destination network elements of a predetermined destination type.

26. The apparatus of claim 24 further comprising:

means for associating one of said plurality of destination network elements with one of a plurality of second switches; and

means for storing said association.

27. The apparatus of claim 24 further comprising:

means for distinguishing said destination network elements as being associated with one of a plurality of second switches of a predetermined destination type.

28. The apparatus of claim 23 wherein said first processing unit comprises:

a decoder for decoding said call set-up information of a first protocol;

an isolator means for determining the called directory number contained in said received call set-up information; and

a subprocessor for performing a routing table lookup of said determined called directory number on a predetermined table of directory numbers associated with traffic of said second traffic type and setting said type of traffic as said second type if a matching directory number is looked up and as said first type if no matching directory number is looked up.

29. The apparatus of claim 23 wherein said first traffic type is a voice call and said second traffic type is data traffic.

30. The apparatus of claim 23 wherein said second processing unit comprises:

means for converting SS7 call set-up information to the corresponding ISDN Q.931 call set-up information.

31. The apparatus of claim 30 wherein said transmitter comprises:

means for transferring said Q.931 information across a Primary Rate interface to said second type of destination network element.

32. (Canceled)

33. The apparatus of claim 23 wherein said second type destination network element is a remote access server.

34. The apparatus of claim 23 wherein said means for controlling a second switch to route call data comprises:

means for sending an application programming interface command to said second switch; and

means for setting up a connection through said second switch to a port connected to said destination network element according to said received command.

35. The apparatus of claim 23 wherein said second switch is an asynchronous transfer mode switch.

36. The apparatus of claim 23 wherein said traffic data is distributed over a digitized voice transmission system selected from the group consisting of T1, E1, STS-1, DS-3, frame relay, native ATM, and Ethernet.

37. The apparatus of claim 23 further comprising:

means for storing call detail information when said determined traffic type is of said second type; and

means for transferring said stored call detail information to a call accounting system.

38. The apparatus of claim 37 wherein said stored call detail information is selected from the group consisting of call start time-stamp, call end time-stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B channel, outbound B channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification.

39. A destination call router for directing voice and data traffic across the PSTN to call destinations and for providing network congestion relief for data traffic, said traffic including signaling and non-signaling traffic from a first switch serving an originating location, said destination call router comprising:

a plurality of asynchronous transfer mode switches, each asynchronous transfer mode switch being a second switch serving a destination location which includes at least a destination end office; and

a Broadband Interworking Call Router (BICR) connected with said asynchronous transfer mode switches, said BICR intercepting signaling of a first or second protocol from a first switch, said BICR translating signaling to a second protocol when receiving signaling for said data calls in said first protocol, said BICR and routing said intercepted signaling to said call destinations, controlling said plurality of asynchronous transfer mode switches to direct traffic to said destinations.

40. A method for routing traffic over a Public Switched Telephone Network (PSTN) from an origin location to a destination location associated with a traffic type, said traffic comprising signaling data and non-signaling traffic data, the method comprising the steps of:

receiving signaling data from a first switch serving the origin location;

determining said traffic type from said signaling data that has been received wherein said traffic type is characterized as a first traffic type or a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type;

translating said signaling data associated with said first traffic type from a first protocol to a second protocol associated with said second traffic type;

directing said signaling data to said destination location associated with said first or second traffic type that has been determined to establish a call; and

controlling a second switch serving said destination location to direct traffic data from the origin location to said destination associated with said first or second traffic type; the switch configured to direct traffic data of the first traffic type to an end office and the second traffic type to another type of network element.

41. A destination call router for routing traffic from an originating location to a destination location over a PSTN comprising:

a first segment responsive to a first switch of a signaling network for determining a traffic type as a first traffic type or a second traffic type and commanding further action based on said traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type; and for translating a call determined to be the first traffic type associated with a first protocol into a second protocol associated with the second traffic type; and

a second segment responsive to commands from said first segment for switching, using a second switch, received transmissions between a plurality of destination locations, at least one destination location being an end

office associated with said first traffic type and at least one destination location being associated with said second traffic type.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.